

other words, JP'019 measures the surface of the galvanized sheet, while the Applicants' Claims 1-6 measure the outer surface of at least two types of coating layers. Thus, the Ra and the PPI of the outermost surface of Claims 1-6 are different from those of the surface of the galvanized steel sheet. This is true, irrespective of the methods employed to do the measuring. Whether the methods are different or the same is irrelevant. The Applicants' Claims 1-6 are measuring something different from what JP'019 is measuring. JP'019 measures the outer surface of a galvanized sheet, while the Applicants measure the outermost of at least two layers on the steel sheet.

This inherently means that the results, irrespective of the methods of measurement, will be different. The Ra and PPI of Claims 1-6 versus those of JP'019 depend on the roughness of the underlying steel sheet, the kinds of coating layers, the number of coating layers and the coating methods. Thus, there are at least four different variables influencing what the Ra and PPI will be, irrespective of the method of measurement. On this basis alone, the Applicants respectfully submit that Claims 1-6 are patentable over JP'019.

The Applicants note with appreciation the Examiner's helpful reference to the chemical conversion of the test pieces as set forth of Page 5 of the English translation and the electrodeposition painting (middle coat) and a painted coat (finishing) applied to the galvanized sheet. The problem with this is that there is no further disclosure as to what the Ra and PPI of that multi-layered sheet would be. The only Ra and PPI measurements disclosed by JP'019 is the galvanized steel sheet, not the multi-layer galvanized sheet. As a consequence, the Applicants respectfully submit that JP'019 is non-enabling as prior art with respect to the Ra and PPI of multiple layers on a steel sheet, irrespective of the method of measurement.

Thus, JP'019 is utterly inapplicable to Claims 1-6 that specifically require at least two coating layers and specific Ra and PPI numbers. There is no disclosure in JP'019 that would lead one of ordinary skill in the art to measure multiple layers, including the middle layer and the paint layer, when the teachings of JP'019 with respect to measurement of Ra and PPI are limited to measuring a single galvanized layer and not other multiple layers. Thus, the Applicants respectfully submit that JP'019 is inapplicable to Claims 1-6. Withdrawal of the rejection is respectfully requested.

The Applicants acknowledge the rejection of Claims 7-12 under 35 U.S.C. §103 over the hypothetical combination of JP'355 with JP'019. JP'355 fails to teach or suggest the appearance of the electrodeposition painting. Moreover, JP'355 fails to disclose, teach or suggest the surface roughness properties of the surface trends steel sheet. Accordingly, one of ordinary skill in the art would have utterly no incentive to make the hypothetical combination of JP'355 with JP'019. In any event, inasmuch as JP'355 utterly fails to teach or suggest surface roughness properties, even if one of ordinary skill in the art would make the hypothetical combination, the result would still be measurement of Ra and PPI on the galvanized steel sheet, not a steel sheet having at least two layers. Withdrawal of that rejection is also respectfully requested.


Further with respect to Claims 2 and 8, the Applicants respectfully submit that JP'019 fails to disclose, teach or suggest spectral analysis. JP'019 also fails to disclose, teach or suggest the concept of controlling the amplitude curve and the method for controlling the amplitude curve. Those claims refer to increasing the ratio of the area of the amplitude curve in the range from 25 to 200 μm in wavelength.

The Applicants have discovered that it is difficult to control area of the amplitude curve by using temper rolling. The invention is effective to control the area of the amplitude curve in

tandem rolling. The Applicants have also discovered that when Wca of the surface of the steel sheet after tandem rolling is controlled to be 0.8 μm or less, the area of ratio of the amplitude curve in the ranges from 25-200 μm in wavelength can be increased, and the surface of the steel sheet having a Wca of 0.8 μm or less after tandem rolling can be obtained when a roller processed by electrical discharging, laser processing or the like is used for tandem rolling. However, JP'019 only discloses skin pass rolling (temper rolling). The problem is that skin pass rolling does not control the area of the amplitude curve. Accordingly, JP'019 does not control the amplitude curve and is inapplicable to Claims 2 and 8. Thus, the Applicants respectfully submit that Claims 2 and 8 are further applicable over JP'019.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,


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